

SCOPE OF CLAIMS

1. An ND filter in which light absorption films and dielectric films are superimposed on a transparent substrate, the ND filter characterized by:

a composition of the light absorption films which includes 1 to 30 wt% of a pure component of a metal and 50 wt% or higher of a saturated oxide component of the metal, and other residual components comprising compounds of the metal including lower oxides of the metal.

2. The ND filter according to claim 1, characterized in that a metal raw material of the light absorption films is selected from Ti, Cr, Ni, NiCr, NiFe and NiTi.

3. The ND filter according to claim 1 or 2, characterized in that SiO_2 or Al_2O_3 is used for the dielectric films.

4. The ND filter according to claim 1, 2 or 3, characterized in that the light absorption films and the dielectric films are superimposed with predetermined thickness and in a predetermined order to provide an reflection prevention function.

5. The ND filter according to claim 1, 2, 3 or 4, characterized in that an reflection prevention layer is

provided on one face of the transparent substrate which is opposite to the other face of the transparent substrate where the light absorption films and the dielectric films are superimposed.

6. The ND filter according to claim 1, 2, 3, 4 or 5, characterized in that the reflection prevention layer is formed of a single layer of a light absorption film or a dielectric film.

7. The ND filter according to claim 1, 2, 3, 4 or 5, characterized in that the reflection prevention layer is formed of a plurality of layers of a light absorption film and a dielectric film.

8. The ND filter according to claim 1, 2, 3, 4 or 5, characterized in that the reflection prevention layer is formed of one or more of layers of thermosetting resin or optically setting resin which is transparent in a visible light range.

9. A light quantity diaphragming device using the ND filter according to one of claims 1 to 8.